

**Illinois Department of Transportation  
Work Zone Safety Committee Meeting  
10:00 a.m. – Executive Conference Room  
September 27, 2005**

Attendees:	Priscilla Tobias	Mike Staggs
	Dennis Huckaba	Jerry Cearlock
	Matt Hart	Mike Renner
	Angie King	Kyle Carson
	Joyce Schroeder	Kurt Schuldt
	Jim Schoenherr	John Benda
	Jessica Baker	Ray Hawkins
	Debra Johnik	Doug Shankel
	Tom Whalen	Matt Mueller
	Michelle Shutt	

The meeting convened at 10:00 a.m. Introduction of all present.

**Opening Remarks:**

Priscilla Tobias welcomed everyone to the meeting. A roster list was distributed to all present, indicating affiliation, e-mail address and telephone number. Also distributed were handouts entitled "Drive Safely Work Week – October 3-7, 2005" and the Work Zone Safety webpage showing the most commonly asked questions and answers to Photo Enforcement, Scott's Law and Work Zones.

**Update on Work Zone Fatalities:**

A hand-out was distributed entitled "Fatalities in Illinois Work Zones 1999-2005." Data is similar to information distributed at the April 27, 2005 meeting. There have been 19 work zone fatalities and 17 crashes to date for the year. Of the 19 fatalities, four were from out of state and four involved alcohol (above the .08 legal limit). Semis are involved in roughly 40 to 45 percent of all work zone fatalities. The majority of motorcycle crashes occur on city streets. The crash that occurred on Labor Day was near the dam on Stevenson Drive in Springfield, Illinois. There was no alcohol involved in this crash. The driver was from out of state, and perhaps unfamiliarity played a factor.

The time of day of all fatal 2005 crashes was reported, indicating no certain timeframe when the majority of crashes occur. Last year at this time, we had 27 fatalities with two workers killed. This year we have had no workers killed. Dennis Lyle asked whether the amount of vehicle miles traveled is tracked in construction zones. Joyce Schroeder indicated that unfortunately this data is not tracked, but is needed. It was noted that while work zone fatality numbers are lower for this year, so are the number of roadway construction projects. Emphasis has been placed on improving signage (warning of upcoming roadway construction from 3 to 5 miles out). The majority of the signing was in good shape, but we are still seeing fatalities. Additional strategies will need to be pursued in this area. Alcohol involvement numbers are down which is positive. Speed seems to be more of a contributing factor.

### **Update on Photo Enforcement:**

The vendor we have been negotiating with has been most difficult. We are three months behind schedule. Legal personnel from our department and the vendor have been going back and forth on legal and language issues. Draft copies of the contract are now being reviewed internally by department staff. Once this is completed, the contract will again be sent to the vendor for their final review. We hope this is not foretelling of the level of service the department will receive once the vendor is on board and the project is up and running.

The sign boards "Photo Enforcement Coming Soon" have been erected at four locations in the state (Dan Ryan, Kingery, I-55 in Bloomington and I-54 in St. Clair County). The intent is to use this time to make motorists aware before the photo enforcement contract is in force. The next step in the process will be to get the vendor on board and then start meeting with the circuit clerk and state's attorney offices to educate and inform them. We need to relay the information regarding fatalities in the work zones and the speed motorists are traveling so they understand this is strictly about safety and not a money-making endeavor or motorist entrapment. Other states have had negative public perception and their programs have been cancelled. We want to make sure we go through the proper steps so this program is a success.

In coordination with Matt Vanover, IDOT Public Relations representative, a letter to legislators and the editor will be written explaining photo enforcement background and IDOT's intent.

The Illinois Highway Toll Authority's board approved acquiring one unit on lease without having an approved final contract. There will be a partnership between IDOT, ISP and the Illinois Tollway. Initially the ISP will man the work zone photo enforcement as a regular patrol; they will not be using the hire-back dollars so in essence the hire-back dollars will be used for trooper enforcement in the car. They will have specially trained officers in the van. The Bureau of Safety Engineering and ISP will look at the construction project list and make decisions (with Director approval) where photo enforcement will be placed during future construction seasons.

### **Comprehensive Highway Safety Plan:**

A final copy of the Comprehensive Highway Safety Plan (CHSP) section "Work Zones" was distributed. A website ([www.dot.il.gov/illinoisCHSP](http://www.dot.il.gov/illinoisCHSP)) has been created for public access. The Governor signed the CHSP right before Labor Day. The next step will be setting up Implementation Teams to coordinate strategies that have been implemented, those that have been successful, and challenges we see and to look at these proposed strategies and make sub-committees. One of these sub-committees should be Rules of the Road (to look at possible updates and proposed changes) comprised of five people (one or two from industry, Becky Watts, Board of Education and Matt Mueller, Bureau of Safety Engineering). Matt Mueller will take the lead. Other areas we will focus on are 1) Photo Enforcement, 2) Use of Speed Trailers, 3) Real Time Work Zone, 4) ITS Technology, and 5) Identifying Contributing Factors in Work Zone Crashes.

Eighty-five percent of the fatalities in the work zones are motorists. We need to increase emphasis with the media so motorists are aware that they are the largest percentage of drivers that are dying in work zones. A NHTSA radio and billboard advertisement in Missouri this year (some of which was geared to workers, but most was geared to the motorist) used the slogan "The Difference Is You."

Another area we should focus on is ways which we can reach out to the public – messages and ideas. We need to focus on the contributing factors of work zones crashes.

### **Illinois State Fair:**

This year the Bureau of Safety Engineering partnered with the Illinois State Police at the Illinois State Fair. The two major focus areas were Photo Enforcement and the Comprehensive Highway Safety Plan. A passport concept was used. The activity booklet focused on the different emphasis areas of the safety plan. Participants had to visit three of the five safety tents (Illinois State Police, Secretary of State, Federal Highway Administration, First Lady's, and IDOT Division of Traffic Safety) to receive stamps in their passport booklet in order to receive a prize. Prizes offered were an orange bracelet which said "CHSP – Do Your Part – Drive Smart", flashing light which could be placed on your bicycle, glow bracelets and license plate frames which read "Arrive Safely – Do Your Part – Drive Smart" contributed by ATSSA. An estimate of cost and recommendation to place these license plate frames on all State DOT vehicles should be made. Scott Klein recommended that industry may be interested in these, i.e., laborers, contractors, teamsters.

Five hundred people per hour were coming through the Illinois State Police tent. The ISP considered this a huge success and has asked for our participation next year. There were numerous questions regarding photo enforcement and construction work zones speed limits.

The Bureau of Safety Engineering recently had a booth at the Illinois Municipal League Conference in Chicago. October 3<sup>rd</sup> through the 7<sup>th</sup> is Drive Safely Work Week. On October 3, the department will have three rest areas events; Railsplitter I-55 Sherman Rest Area, Peoria Mackinaw Dell I-74 Rest Area and the Champaign Illinois Prairie I-57 Rest Area. The Bureau of Safety Engineering will have staff at the Peoria rest area doing a PowerPoint presentation and Traffic Safety will be present at the Railsplitter Rest Area. Jerry Cearlock, District 5 volunteered to have staff present at the Illinois Prairie Rest Area if needed. The focus is public awareness and to drive safely for this week. On October 20-21, the bureau will be at the Traffic Engineering Conference in Urbana, Illinois. We are taking every available opportunity to outreach and talk about work zone safety.

**Work Zone Poster/Calendar Contest:**

The Office of External Affairs along with the Bureau of Safety Engineering, ATSSA, ATSSA Foundation (the State foundation of ATSSA) are putting together a statewide safety calendar contest for kindergarten through sixth grade. There will be two categories: K-3 and 4-6. About 2 weeks ago, 3,000 information packets were sent to all superintendents of elementary schools. Calls have been coming in from schools who are interested in participating. Each school will submit two winners from each category to the Office of External Affairs. These pictures will be scanned onto the Work Zone Safety website to be judged on-line.

The Office of External Affairs is working with the Bureau of Information Processing to see how to display the entries. There will be a search by category, school, and name of entrant. You will place a vote by using "orange ribbons". The top fifteen contestants from the on-line judging in each category will go to a celebrity judging panel. One celebrity judge has been secured; Hannah Johnson (Tina Ball's sister who was a flagger killed in Chicago a couple of years ago). The celebrity judges will then choose the top three winners from each category and they will also choose ten additional winners. The top six will advance to the national ATSSA calendar contest. The sixteen Illinois contestants will be in a sixteen month calendar that will be distributed at events throughout the State. The deadline for entry will be December 1<sup>st</sup>, with on-line judging beginning on December 12<sup>th</sup> through January 13, 2006. Winners will be announced at an awards banquet sometime in February. Sponsors are being locked in to help pay for the luncheon, trophies for the sixteen Illinois winners, and also a certification of participation for any child who entered the contest.

John Crozier's family will be contacted by Angie King regarding their participation as a celebrity judge and she will report their decision to the Office of External Affairs.

**Incident Management:**

When we talk about incident management, we hear the minor incident, the intermediate and the major. When you look at the MUTCD's, they talk about the traffic control and the devices required; however, you would not be able to carry all of these items in the trunk of a car. However, there are portable devices such as collapsible cones. Brochures advertising these types of devices are sometimes deceiving. When you look at the information and advertising material, there does not appear to be much difference between products, however, the detailing and specifications of certain products can be much better. These products can be very useful, but before purchasing these types of items, the total product package should be examined. They could prove useful for a short-term situation. IDOT does have an agreement with the ISP and, if there is a major accident and they need traffic control, they get in touch with the Bureau of Operations and staff is sent to the scene.

Calls are received from local officials concerning the proper procedures regarding closing a road and, at this point, we do not do any incident management training. This is an area we need to further examine. One of the Master Sergeants in the Joliet area has developed a training course and they will be meeting with the Bureau of Safety Engineering to see if this is something we want to standardize.

**Work Site Protection Manual:**

The *Work Site Protection Manual* has been revised and distributed along with a cover memo which describes the major changes. Major issues were addressed. Prior to its distribution, draft copies of this manual were sent for comments, changes made and then re-sent for additional comments.

One major issue that was addressed was “Work During Non-Daylight Hours – Worker Visibility.” We had the opportunity to put our workers in an Ansi Class III garment, which is a higher visibility. The decision was made after discussing with the Districts and others that we would provide the ANSI Class III to those with higher exposure such as a flagger who had to stand in or next to a lane or night maintenance (those who spend 100% of their time out at night). As far as emergency call-out, it was hard to cover the hundreds of workers that we have throughout the state that might get called out once or twice a year.

Another issue that was addressed was the “Interstate Multi-lane Lane Closure.” The construction standards were revised a couple of years ago to add in advance warning signs for long-term closures, specifically where we thought we would have problems with back up. It was interesting to see the District comments; while some were complaining others were thinking this issue through. One major cost issue that came out of District 4 was the changeable message board. On a construction project, you definitely need a changeable message board that can adjust to conditions. A changeable message board is not available for all of our maintenance crews. For a day time lane closure only where you may have a back up condition, District 4 came up with a standard sign using flashing lights to make it attract driver’s attention and basically provide the same information as a changeable message board. You don’t have the flexibility if you have an accident of putting up “Accident Ahead”; on the other hand, your chances of having this occur are less. This is something that can be constructed in some of the District yards.

January 1, 2006 will be the effective date for these changes. Obviously, some of the districts may have difficulty getting the proper equipment in the proper place by this date. Fifty impact attenuators were purchased that will be distributed to district yards and Day Labor.

One other item is the *Work Site Protection Manual for Others*. Since we have a lot of other employees who are out in the field, we have a supplement to cover them. Basically, the same changes will be made as those in the *Work Site Protection Manual*. It is ready to be printed and will be distributed for comment. Night inspection crews will be affected insofar as their garments. Bridge inspection crews who spend time out at night will also be affected. Contractors will have to follow the contract specifications because our permits require IDOT standards be followed.

The Illinois Highway Toll Authority has been working for several years on a Roadway and Communications Guide. It is a re-make of the Traffic Manual. Since most of their specifications have migrated toward those of IDOT, there is no need to have a separate manual. When you drive along the Tollway roadway system, you see a lot of project information signs and this guide has been put together to explain the whys and wherefores. It is being published effective September 1, 2005. Copies are available via e-mail if committee members are interested or a CD could be mailed.

### **Abraham Lincoln Bridge Crash in District 3:**

On I-39 on the Abraham Lincoln Bridge going across the Illinois River there was a lane closure. There was a crash that involved a box van hauling a piece of equipment. It was in the open lane, lost control and banged into the wall several times (traveling too fast through the work zone). The vehicle hit the bridge parapet. There were iron workers present at the time. The New Jersey barrier came apart and the connections split. The New Jersey barrier has a wire-rope connection. The barrier wall slid from the impact. One worker was hit by a flying piece from the box van and was hospitalized over the weekend. The Traffic Control Supervisor happened to be on his way to work when this accident occurred so pictures were captured. This accident would have been a disaster if not for the barrier wall.

At a construction meeting it was discussed that IDOT workers and the contractor's laborers need to be aware that when they are next to the barrier it can move.

### **Initiatives to Reduce Crashes Involving Large Trucks:**

A study was performed last year on I-70 near Vandalia in District 7. A speed trailer was placed to see what impact it would have on speed through the construction site. On that project, there is bridge replacement using a cross over and you have head-to-head traffic. In that location, it is not a high volume roadway and they have not had any accidents. But we wanted to see the impact of placing a speed trailer in this location since this project would be on-going over a lengthy period of time. A high star traffic counting device was installed in the pavement. This device classifies and counts cars and trucks and their speed. Last year we closed the passing lane and this year we closed the driving lane. The results indicate that the speeds are different based on which lane is closed. When the driving lane is closed and those drivers are merging to the passing lane, they are perhaps slowing the traffic down based on the results of the study. The speed in the left lane is much higher.

This year work zone reviews were performed and the following are things that were discovered. When we do stage construction on a bridge, the temporary concrete barrier used should only be IDOT approved barrier. One of the problems we had was with clearances. If you follow the yellow roadway striping, you would hit the barrier; the hinge-point. Almost every job reviewed where the hinge-point is located you will see black tire marks along the bottom edge from vehicles hitting it. Sometimes it is hard to communicate what we would like and the standards do not always show it. When you have too narrow of an opening, more crashes occur. The minimum lane width is 15'; we would prefer 16'. Another problem is the taper length of the entrances and exits on ramps. Better access needs to be provided. On construction lane closure restrictions, the flaggers were slowing traffic down. On some roadways when we close a lane, we are going to have traffic queues and back-up. On I-54 in St. Louis, we required that two lanes be open at all times. On the west end of the project, there were three lanes, then once over the hill you have two lanes, causing traffic to back up. The traffic was backed up to the point of causing two construction projects to run together. There needs to be better coordination between projects.

Smart work zone technologies are devices that warn motorists. It was used on the I-55 Springfield bridge project. It was deemed successful, but it was not proven since traffic delays were never what we expected. There was an early merge system used on I-80 to get traffic merged over very early. Signs were erected saying "Do Not Pass" with flashing lights. This was a failure because motorists were confused and did not understand the concept. In District 8 they were using a message board and speed monitoring system telling people of alternate routes. This seems to be one of the better systems we have used to date insofar as a smart work zone.

Changeable message boards need to be programmable and installed at the proper location to inform motorists of upcoming traffic problems; accident ahead, lane closure, etc.

Rumble strips are something we need to look at in the future; good temporary rumble strips have not been found. Three layers of thermo-plastic were used on I-70. In a car it was not bad, however, in a truck there was not much difference, but it was better than nothing. It helped for a bit, but then came up and we had the same amount of crashes.

In several weeks there will be a Program Development meeting of internal IDOT design staff throughout the state. A presentation will be made to point out problems to district staff. We will discuss how to improve our plans.

**Federal Rulemaking Regarding Work Zones:**

The proposed federal rule regarding work zone safety and mobility requirements was finalized. States will have to adopt by October of 2007. It primarily deals with motorists getting through work zones safely and dealing with congestion. It changes the current language of the federal regulations. The past focus of the federal regulations was very limited on safety and work zone requirements. It was outdated and has now been rewritten to put new emphasis on mobility and expanded emphasis on safety. Each state will have to develop a process and policy in addressing these regulations. The biggest issue will be defining projects with impacts and mitigating those impacts. A lot of the practices occur in Illinois but are not in the current policy.

This rulemaking requires training for personnel involved in work zone planning, design implementation management and enforcement. The Bureau of Safety Engineering will go through the guidelines, finding out what was required, what was recommended, what is currently in place and basically what the next steps will be. The department will have to develop a transportation management plan for projects that are identified and the process reviews that will be required.

The traffic management plan is supposed to be included in the plans and specifications and there will be a responsible person on both the state and contractor side to monitor the traffic management plan and the other safety and mobility aspects of the project.

AASHTO is developing an implementation guidebook. After going through this book and the rulemaking, we can have a better idea of where we stand. The contractor will have an interest in this, because in some states, it may be the contractor that has to develop the traffic management plan.

The Department of Transportation has set up a research center through the University of Illinois. There will be a technical advisory group; Priscilla Tobias will chair the safety engineering advisory group. Essentially, the University will do research. Any issues that you think should be researched should be brought to the committee's attention. Photo Enforcement is a project that will be researched by the U of I.

The meeting adjourned at 12:45 p.m. The next meeting will be held on January 11, 2006 at 10:00 a.m. in the Executive Conference Room of the Harry R. Hanley building.